What is claimed is:

1. A method for analysis of a collection of documents, which method comprises the steps of:

5   a. selecting a data set for analysis from said collection of documents;

    b. selecting at least one analysis means for said data set including an analysis algorithm based on the structure of said data set; and

    c. using the selected analysis means to produce a result from the analysis comprising relationships among the documents in the selected set.

10 2. The method of claim 1, wherein the result comprises an index.

    3. The method of claim 1, wherein the result comprises a graphical representation.

    4. The method of claim 1, wherein the result is in a visual index form suitable for display or further analysis.

15 5. The method of claim 1, wherein said analysis means includes means to identify and display patterns in patenting activity, patterns in scientific research, patterns in commercial activity or patterns in popular interest in an area that can affect business or technology decisions.

    6. The method of claim 1 wherein said analysis means comprises an
20   algorithm capable of bibliographic analysis.

    7. The method of claim 1, wherein said analysis means comprises an algorithm selected from the group consisting of co-occurrence analysis, co-word analysis and co-citation analysis.

8. The method of claim1, wherein said analysis means comprises an algorithm selected from the group consisting of Markov models, hidden Markov models, partial least squares and principal component analysis.

9. The method of claim 7 or 8, wherein the data set comprises information from issued patents or patent applications.

10. The method of claim 7 or 8, wherein said analysis means utilizes one or more of the group consisting of genetic algorithms, Bayesian learning, neural networks, Markov models, hidden Markov models, co-word analysis, co-citation analysis, partial least square, or principle component analysis.

11. The method of claim 1, wherein the method further includes the step of formatting at least a portion of the data set which is not in a standard format into a standard format prior to utilizing the analysis means.

12. The method of claim 1, wherein said analysis means utilizes algorithms selected from the group consisting of co-citation analysis, co-word analysis, genetic algorithms, Bayesian learning, neural networks, Markov models, hidden Markov models, partial least squares, or principal component analysis, to create a visually displayable index to a selected set of documents.

13. An expert system for analysis of a collection of documents, comprising:

    a) means for selecting a data set for analysis from the collection of documents;

b) means for selecting at least one analysis algorithm for said data set based on the structure of said data set; and

c) means for utilizing said at least one analysis algorithm to perform an analysis of said data set to produce a result comprising relationships among the documents in said data set.

14. The expert systems as claimed in claim 13, wherein the result comprises an index.

15. The expert systems as claimed in claim 13, wherein the result comprises a graphical representation.

16. The expert systems as claimed in claim 13, wherein the result is in a visual index form suitable for display or further analysis.

17. The expert systems as claimed in claim 13, wherein said analysis means includes means to identify and display patterns in patenting activity, patterns in scientific research, patterns in commercial activity or patterns in popular interest in an area that can affect business or technology decisions.

18. The expert systems as claimed in claim 13, wherein said analysis means comprises an algorithm capable of bibliographic analysis.

19. The expert systems as claimed in claim 13, wherein said analysis means comprises an algorithm selected from the group consisting of co-occurrence analysis, co-word analysis and co-citation analysis.

20. The expert systems as claimed in claim 13, wherein said analysis means comprises an algorithm selected from the group consisting of Markov

models, hidden Markov models, partial least squares and principal component analysis.

21. The expert systems as claimed in claim 13, wherein the data set comprises information from issued patents or patent applications.

5 22. The expert systems as claimed in claim 13, wherein said analysis means utilizes one or more of the group consisting of genetic algorithms, Bayesian learning, neural networks, Markov models, hidden Markov models, co-word analysis, co-citation analysis, partial least square, or principle component analysis.

10 23. The expert systems as claimed in claim 13, wherein the method further includes the step of formatting at least a portion of the data set which is not in a standard format into a standard format prior to utilizing the analysis means.

24. The expert systems as claimed in claim 13, wherein said analysis means
15 utilizes algorithms selected from the group consisting of co-word, co-citation analysis, genetic algorithms, Bayesian learning, neural networks, Markov models, hidden Markov models, partial least squares, or principal component analysis, to create a visually displayable index to a selected set of documents.

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